

# Re-Thinking Pre-College Math: Improving Student Achievement

Project Name:

Highline Community College (HCC)

## 2. Math Department Faculty Inquiry Groups



### WHAT DO WE TEACH AND WHY?

- Shortening sequence to reach college level
- Direct attention to student learning behaviors, attitudes, beliefs
- Focusing content on immediately relevant, related to other coursework (outside math)

### HOW DO WE TEACH? -CLASSROOM EXCHANGE

- Rote skill development shifted to My-MathLab- provides students with immediate feedback, opportunity to work to mastery
- Faculty learning community lead instructor model for each course level.
- Classroom observation--Complex instruction framework.

### HOW DO WE KNOW LEARNING HAS OCCURRED? -CLASSROOM ASSESSMENT

- Mastery test requirements for core topics, data is pooled, examined.
- Examine student work, share anecdotal experiences.

### 3. WHAT IS SUCCESS GOING TO LOOK LIKE?

- ⇒ **STUDENT ACHIEVEMENT**  
Increase diversity of STEM students.  
Higher pass rates quarter-to-quarter retention
- ⇒ **MATH DEPARTMENT**  
Broad buy-in to philosophy, process  
Increased willingness to examine practice
- ⇒ **SPECIFIC STUDENT EXPERIENCES**  
Awareness of applicability (perception of utility) of material being learned.

### 4. CHALLENGES?

- ⇒ **HOW TO ADOPT FRAMEWORK FOR DEVELOPING SELF-EFFICACY, SELF-REGULATION TO OUR CONTEXT?**
- ⇒ **ESTABLISHING A NEW COMMUNITY OF PRACTICE**
- ⇒ **PLACEMENT TESTING**
- ⇒ **HOW DO WE HELP STUDENTS IDENTIFY THAT CERTAIN KNOWLEDGE, TRAITS, BEHAVIORS PAY OFF AND ARE WORTH PURSUING?**

### 1. WHAT DOES THE DEPARTMENT BRING ALREADY?

- ⇒ **WORK ON SAMS PROJECT**
- ⇒ **DATA ANALYSIS CAPACITY-HELEN BURN'S RESEARCH TRAINING**
- ⇒ **COLLABORATIVE/COLLE-GIAL ENVIRONMENT**
- ⇒ **ATD PHILOSOPHY AND PROCESS**
- ⇒ **ADMINISTRATIVE SUPPORT**
- ⇒ **EXPLORATION OF ALTERNATIVE CURRICULA (ALT.INTERMEDIATE ALGEBRA; MULTIPLE DELIVERY FORMATS)**